

**Code No: D4001**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**M.Tech II - Semester Examinations, March 2011**

**ADHOC AND SENSOR NETWORKS**

**(INFORMATION TECHNOLOGY)**

**Time: 3hours**

**Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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1. (a) What are the characteristics of MANETs.  
(b) Discuss about the topology based routing algorithms in MANETs. [12]
2. Write about the Broadcast storm problem in detail. [12]
3. Explain the Architecture of Wireless Sensor Networks with neat diagrams. [12]
4. Discuss about the Inherent Dynamic nature of Wireless Sensor Networks. [12]
5. Explain the routing layer design issues in sensor networks. [12]
6. Explain the key management to secure the data transmissions in Wireless sensor networks. [12]
7. What are the sensor network programming challenges and describe these in detail. [12]
8. (a) Write short notes on Tiny OS  
(b) What is the importance of ns-2 Simulator in WSN and how it is used to simulate the data transmissions? [12]

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